

EXHIBIT 5

EXHIBIT 5 to Wolverine Motion to Dismiss
Section 101 Analysis of U.S. Patent No. 7,251,629

<p>1. An automated trading system for use in an electronic exchange system network, comprising:</p> <p style="padding-left: 40px;">a receiver interface that receives market price information for a first traded item from an exchange;</p> <p style="padding-left: 40px;">data reference logic that outputs a transaction value for the first traded item from a data structure based on price information for a second traded item related to the first traded item;</p> <p style="padding-left: 40px;">decision logic using at least a portion of the received market price information and the transaction value to generate a decision whether to submit an order for the first traded item; and</p> <p style="padding-left: 40px;">an output interface for outputting a request for market transaction for one of the first traded item and the second traded item for transmission to the exchange in response to said decision logic.</p>	<p><u>Machine Test</u></p> <p>The claim's references to "an electronic exchange system network," a "receiver interface" and an "output interface" do not satisfy the machine test for the following reasons:</p> <ol style="list-style-type: none">1. The claim is not limited to a <i>particular</i> or <i>specific</i> machine or structure.<ul style="list-style-type: none">• These referenced devices are general in nature and scope, and available to the everyday trader or consumer. They are not unique to the patent or to the claimed steps.2. The recited devices are not sufficiently "tied" to the claimed process.<ul style="list-style-type: none">• The referenced devices merely assist in the execution of the method steps, but are not mandatory for the steps' implementation, as the claim may be performed both manually and/or mentally.3. Use of the recited devices does not impose meaningful limits on the claim scope.<ul style="list-style-type: none">• Due to the generic nature of the recited devices, the claim completely preempts the trading industry use of decision-making and order submission processes that pre-date the patent.4. The recited devices are used for "insignificant extra-solution activity."<ul style="list-style-type: none">• The referenced devices only speed up execution of previously-existing trader processes. <p><u>Transformation Test</u></p> <p>Like the <i>Bilski</i> claims, this claim does not transform a particular physical article into a different state or thing. Rather, the claim merely manipulates data in order to execute trades of items that are not, themselves, physical</p>
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	<p>objects or representative of a physical object. <i>See In re Bilski</i>, 545 F.3d 943, 963-66 (Fed. Cir. 2008); <i>see also Gottschalk v. Benson</i>, 409 U.S. 63, 70 (1972).</p> <p><u>Further Indicia That Claim Covers Only “Abstract Idea”</u></p> <p>Each of the substantive steps/actions in this claim is a manual or mental step that the patent specification acknowledges had been practiced for years in the trading industry (see ‘629 Pat. 1:40-48); the claim’s only addition is the abstract idea that these known steps should be automated to increase speed. Automation to increase speed, especially in the absence of any specifically defined hardware (i.e., “machine”) and/or any concretely defined and executable algorithms, is an abstract idea, the patenting of which the Supreme Court specifically warned against in <i>Bilski</i>. Allowing Edge to patent the idea of automating the well-known, conventional method(s) of buying and selling stocks and/or derivatives based on price discrepancies “would effectively grant a monopoly over an abstract idea.” <i>Bilski v. Kappos</i>, 130 S. Ct. 3218, 3231 (2010).</p>
2. The automated trading system according to claim 1, wherein data reference logic receives current price information for the second traded item and uses the current price information to output the transaction value.	<p><i>See</i> analysis of claim 1, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
3. The automated trading system according to claim 2, wherein said data reference logic comprises: memory storing the data structure, wherein the data structure maps pre-calculated transaction values of the first traded item over a range of price values of the second traded item; and reference logic for identifying one of the pre-calculated transaction values based at least in	<p><i>See</i> analysis of claims 1 and 2, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional recitation of “memory” does not allow this claim to pass the machine test, as this recitation suffers from all the same issues as the device recitations of claim 1. • The additional process limitations of this claim do not alter the transformation test analysis. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase

part on a current price value for the second traded item.	speed of previously manual and/or mental processes.
4. The automated trading system according to claim 3, wherein the data structure is a two-dimensional data structure mapping pre-calculated transaction values of the first traded item over a range of prices of the second traded item.	<ul style="list-style-type: none"> • See analysis of claims 1 and 3, from which this claim depends. • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
5. The automated trading system according to claim 3, wherein the data structure is an n-dimensional data structure, where n is 3 or more.	<p>See analysis of claims 1 and 3, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
6. The automated trading system according to claim 3, wherein the data structure is a look-up table	<p>See analysis of claims 1 and 3, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
7. The automated trading system according to claim 3, wherein the data structure comprises a linked list.	<p>See analysis of claims 1 and 3, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
8. The automated trading system according to claim	See analysis of claims 1 and 3, from which this claim depends.

3, wherein the data structure comprises a tree structure.	<ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
9. The automated trading system according to claim 1, said decision logic compares at least a portion of the received market price information to the transaction value when automated trading in the first item first becomes enabled.	<p><i>See analysis of claim 1, from which this claim depends.</i></p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
10. The automated trading system according to claim 1, further comprising safety check logic, responsive to said decision logic, to prevent transmission of a request for market transaction for the first traded item to the exchange if the request does not meet a predetermined criterion.	<p><i>See analysis of claim 1, from which this claim depends.</i></p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
11. The automated trading system according to claim 10, where the predetermined criterion is maximum trade quantity for the first traded item.	<p><i>See analysis of claims 1 and 10, from which this claim depends.</i></p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
12. The automated trading system according to claim 10, wherein said predetermined criterion is a maximum number of market transaction attempts within a predetermined period of time and said decision logic compares at least	<p><i>See analysis of claims 1 and 10, from which this claim depends.</i></p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase

a portion of the received market price information to the transaction value when the maximum number of attempts is increased.	speed of previously manual and/or mental processes.
13. The automated trading system according to claim 1, where the receiver interface receives the market price information for the first traded item indirectly from the exchange via an exchange interface.	<p><i>See</i> analysis of claim 1, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional recitations of “receiver interface” and “exchange interface” do not allow this claim to pass the machine test, as these recitations suffer from all the same issues as the device recitations of claim 1. • The additional process limitations of this claim do not alter the transformation test analysis. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
14. The automated trading system according to claim 1, wherein the decision logic compares the transactional value to at least a portion of the received market price information.	<p><i>See</i> analysis of claim 1, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
15. The automated trading system according to claim 14, wherein the transaction value is a minimum sell price for the first traded item, and the market price information includes a market bid price for the first traded item.	<p><i>See</i> analysis of claims 1 and 14, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
16. The automated trading system according to claim	<i>See</i> analysis of claims 1 and 14, from which this claim depends.

14, wherein the transaction value is a maximum buy price for the first traded item, and the market price information includes a market ask price for the first traded item.	<ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
17. The automated trading system according to claim 14, wherein the transactional value is a theoretical value of the first traded item based on a mathematical model.	<p><i>See analysis of claims 1 and 14, from which this claim depends.</i></p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
18. The automated trading system according to claim 14, wherein the price information for the second traded item corresponds to a current market price for the second traded item and said decision logic generates a comparison when the current market price for the second traded item changes.	<p><i>See analysis of claims 1 and 14, from which this claim depends.</i></p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
19. The automated trading system according to claim 14, wherein said price information for the second traded item corresponds to a current market price for the second traded item and said decision logic generates a comparison when the price information for the first traded item changes	<p><i>See analysis of claims 1 and 14, from which this claim depends.</i></p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
20. The automated trading system according to claim 1, wherein a backend computer includes said receiver interface, said data reference logic, said decision logic, and said output interface	<p><i>See analysis of claim 1, from which this claim depends.</i></p> <ul style="list-style-type: none"> • The additional recitations of a “backend computer,” and a “receiver interface,” do not allow this claim to pass the machine test, as these recitations suffer from all the same issues as the device recitations of

and said first backend computer operates using a Windows-based operating system.	<p>claim 1.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the transformation test analysis. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
21. The automated trading system according to claim 1, wherein a backend computer includes said receiver interface, said data reference logic, said decision logic, and said output interface and said first backend computer operates using a text-based operating system.	<p><i>See</i> analysis of claim 1, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional recitations of a “backend computer,” a “receiver interface,” and an “output interface,” do not allow this claim to pass the machine test, as these recitations suffer from all the same issues as the device recitations of claim 1. • The additional process limitations of this claim do not alter the transformation test analysis. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
22. The automated trading system according to claim 21, further comprising a trader station separate from said backend computer, said trader station coupled to said backend computer through a communication link, said trader station including a graphic user interface to enable a trader to monitor the operation of said backend computer.	<p><i>See</i> analysis of claims 1 and 21, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional recitations of a “backend computer,” a “trader station,” and a “graphic user interface,” do not allow this claim to pass the machine test, as these recitations suffer from all the same issues as the device recitations of claim 1. • The additional process limitations of this claim do not alter the transformation test analysis. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
23. The automated trading system according to claim 22, wherein said trader station transmits updated data reference information for updating said data reference logic to said	<p><i>See</i> analysis of claims 1 and 22, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional recitations of a “backend computer” and a “trader station” do not allow this claim to pass the machine test, as these recitations suffer from all the same issues as the device recitations of

backend computer over the communication link.	<p>claim 1.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the transformation test analysis. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
24. The automated trading system according to claim 23, wherein said decision logic compares at least a portion of the received market price information to the transaction value when the data reference information is updated.	<p><i>See</i> analysis of claims 1 and 23, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
25. The automated trading system according to claim 23, wherein said trader station calculates the updated data reference information and the backend computer stores the calculated updated data reference information.	<p><i>See</i> analysis of claims 1 and 23, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional recitations of a “trader station” and a “backend computer” do not allow this claim to pass the machine test, as these recitations suffer from all the same issues as the device recitations of claim 1. • The additional process limitations of this claim do not alter the transformation test analysis. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
26. The automated trading system according to claim 22, wherein said backend computer is located substantially closer than said trader station to the exchange that transmits the market price information for the first traded item.	<p><i>See</i> analysis of claims 1 and 22, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional recitations of a “backend computer” and a “trader station” do not allow this claim to pass the machine test, as these recitations suffer from all the same issues as the device recitations of claim 1. • The additional process limitations of this claim do not alter the transformation test analysis. • The additional limitations do not alter the conclusion that this claim

	attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
<p>27. An automated trading method for use in an electronic exchange system network, comprising:</p> <p>using equipment to perform trading of a first traded item or a second traded item related to the first traded item, including:</p> <p>receiving market price information for the first traded item;</p> <p>identifying a desired price for the first traded item in a look-up table based on price information for the second traded item;</p> <p>comparing the received market price information for the first traded item to the desired price for the first traded item; and generating an order for one of the first traded item and the second traded item based on the comparison of the received market price information to the desired price.</p>	<p><u>Machine Test</u></p> <p>The claim's references to "an electronic exchange system network," and "equipment" do not satisfy the machine test for the following reasons:</p> <ol style="list-style-type: none"> 1. The claim is not limited to a <i>particular</i> or <i>specific</i> machine or structure. <ul style="list-style-type: none"> • These referenced devices are general in nature and scope, and available to the everyday trader or consumer. They are not unique to the patent or to the claimed steps. 2. The recited devices are not sufficiently "tied" to the claimed process. <ul style="list-style-type: none"> • The referenced devices merely assist in the execution of the method steps, but are not mandatory for the steps' implementation, as the claim may be performed both manually and/or mentally. 3. Use of the recited devices does not impose meaningful limits on the claim scope. <ul style="list-style-type: none"> • Due to the generic nature of the recited devices, the claim completely preempts the trading industry use of decision-making and order submission processes that pre-date the patent. 4. The recited devices are used for "insignificant extra-solution activity." <ul style="list-style-type: none"> • The referenced devices only speed up execution of previously-existing trader processes. <p><u>Transformation Test</u></p> <p>Like the <i>Bilski</i> claims, this claim does not transform a particular physical article into a different state or thing. Rather, the claim merely manipulates</p>

	<p>data in order to execute trades of items that are not, themselves, physical objects or representative of a physical object. <i>See In re Bilski</i>, 545 F.3d 943, 963-66 (Fed. Cir. 2008); <i>see also Gottschalk v. Benson</i>, 409 U.S. 63, 70 (1972).</p> <p><u>Further Indicia That Claim Covers Only “Abstract Idea”</u></p> <p>Each of the substantive steps/actions in this claim is a manual or mental step that the patent specification acknowledges had been practiced for years in the trading industry (see ‘629 Pat. 1:40-48); the claim’s only addition is the abstract idea that these known steps should be automated to increase speed. Automation to increase speed, especially in the absence of any specifically defined hardware (i.e., “machine”) and/or any concretely defined and executable algorithms, is an abstract idea, the patenting of which the Supreme Court specifically warned against in <i>Bilski</i>. Allowing Edge to patent the idea of automating the well-known, conventional method(s) of buying and selling stocks and/or derivatives based on price discrepancies “would effectively grant a monopoly over an abstract idea.” <i>Bilski v. Kappos</i>, 130 S. Ct. 3218, 3231 (2010).</p>
28. The automated trading method according to claim 27, wherein said first traded item corresponds to an option and the second traded item corresponds to a security underlying the option.	<p><i>See</i> analysis of claim 27, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
29. The automated trading method according to claim 27, wherein said step of identifying a desired price, comprises: (a) receiving current market price information for said second traded item;	<p><i>See</i> analysis of claim 27, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.

<p>(b) using said current market price information for said second traded item to index a desired price for said first traded item in said look-up table.</p>	
<p>30. The automated trading method according to claim 27, wherein said look-up table comprises a two-dimensional table providing desired price values indexed by item traded and price of the second traded item.</p>	<p><i>See</i> analysis of claim 27, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
<p>31. The automated trading method according to claim 27, wherein said look-up table comprises an n-dimensional table, where n is 3 or more.</p>	<p><i>See</i> analysis of claim 27, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
<p>32. An automated method of trading in an exchange system network, comprising: using equipment to perform trading of an option including: receiving a current market price for the option from an exchange; comparing the current market price for the option with a desired price for the option, said desired price derived from current price information for an underlying security for the</p>	<p><u>Machine Test</u> The claim's references to "an exchange system network," and "equipment" do not satisfy the machine test for the following reasons:</p> <ol style="list-style-type: none"> 1. The claim is not limited to a <i>particular</i> or <i>specific</i> machine or structure. <ul style="list-style-type: none"> • These referenced devices are general in nature and scope, and available to the everyday trader or consumer. They are not unique to the patent or to the claimed steps. 2. The recited devices are not sufficiently "tied" to the claimed process. <ul style="list-style-type: none"> • The referenced devices merely assist in the execution of the method

<p>option; and</p> <p>submitting an order for the option to the exchange within 1 millisecond of the step of receiving the current market price.</p>	<p>steps, but are not mandatory for the steps' implementation, as the claim may be performed both manually and/or mentally.</p> <p>3. Use of the recited devices does not impose meaningful limits on the claim scope.</p> <ul style="list-style-type: none"> • Due to the generic nature of the recited devices, the claim completely preempts the trading industry use of decision-making and order submission processes that pre-date the patent. <p>4. The recited devices are used for “insignificant extra-solution activity.”</p> <ul style="list-style-type: none"> • The referenced devices only speed up execution of previously-existing trader processes. <p><u>Transformation Test</u></p> <p>Like the <i>Bilski</i> claims, this claim does not transform a particular physical article into a different state or thing. Rather, the claim merely manipulates data in order to execute trades of items that are not, themselves, physical objects or representative of a physical object. <i>See In re Bilski</i>, 545 F.3d 943, 963-66 (Fed. Cir. 2008); <i>see also Gottschalk v. Benson</i>, 409 U.S. 63, 70 (1972).</p> <p><u>Further Indicia That Claim Covers Only “Abstract Idea”</u></p> <p>Each of the substantive steps/actions in this claim is a manual or mental step that the patent specification acknowledges had been practiced for years in the trading industry (see ‘629 Pat. 1:40-48); the claim’s only addition is the abstract idea that these known steps should be automated to increase speed. Automation to increase speed, especially in the absence of any specifically defined hardware (i.e., “machine”) and/or any concretely defined and executable algorithms, is an abstract idea, the patenting of which the Supreme Court specifically warned against in <i>Bilski</i>. Allowing Edge to patent the idea of automating the well-known, conventional method(s) of buying and selling stocks and/or derivatives based on price discrepancies</p>
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	“would effectively grant a monopoly over an abstract idea.” <i>Bilski v. Kappos</i> , 130 S. Ct. 3218, 3231 (2010).
33. The automated trading method according to claim 32, wherein said step of submitting an order is performed within 600 microseconds of the step of receiving the current market price.	<p>See analysis of claim 32, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
34. The automated trading method according to claim 33, wherein said step of submitting an order is performed within 380 microseconds of the step of receiving the current market price.	<p>See analysis of claims 32 and 33, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
35. The automated trading method according to claim 34, wherein said step of submitting an order is performed within 250 microseconds of the step of receiving the current market price.	<p>See analysis of claims 32 and 34, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
36. An automated trading method for use in an exchange system network, comprising: using equipment in a network architecture to perform trading of a first traded item including: receiving market information for the first traded item;	<p><u>Machine Test</u> The claim’s references to “an exchange system network,” “equipment,” and “network architecture,” do not satisfy the machine test for the following reasons:</p> <ol style="list-style-type: none"> 1. The claim is not limited to a <i>particular</i> or <i>specific</i> machine or structure. <ul style="list-style-type: none"> • These referenced devices are general in nature and scope, and available to the everyday trader or consumer. They are not unique to

identifying a transaction value for the first traded item in a look-up table of transaction values for the first traded item, wherein the identifying is responsive to receiving the market information for the first traded item and wherein the transaction values in the look-up table are based on price information for a second traded item related to the first traded item; and

using at least the identified transaction value in determining whether to submit an order for the first traded item.

the patent or to the claimed steps.

2. The recited devices are not sufficiently “tied” to the claimed process.
 - The referenced devices merely assist in the execution of the method steps, but are not mandatory for the steps’ implementation, as the claim may be performed both manually and/or mentally.
3. Use of the recited devices does not impose meaningful limits on the claim scope.
 - Due to the generic nature of the recited devices, the claim completely preempts the trading industry use of decision-making and order submission processes that pre-date the patent.
4. The recited devices are used for “insignificant extra-solution activity.”
 - The referenced devices only speed up execution of previously-existing trader processes.

Transformation Test

Like the *Bilski* claims, this claim does not transform a particular physical article into a different state or thing. Rather, the claim merely manipulates data in order to execute trades of items that are not, themselves, physical objects or representative of a physical object. *See In re Bilski*, 545 F.3d 943, 963-66 (Fed. Cir. 2008); *see also Gottschalk v. Benson*, 409 U.S. 63, 70 (1972).

Further Indicia That Claim Covers Only “Abstract Idea”

Each of the substantive steps/actions in this claim is a manual or mental step that the patent specification acknowledges had been practiced for years in the trading industry (see ‘629 Pat. 1:40-48); the claim’s only addition is the abstract idea that these known steps should be automated to increase speed. Automation to increase speed, especially in the absence of any specifically defined hardware (i.e., “machine”) and/or any concretely defined and

	executable algorithms, is an abstract idea, the patenting of which the Supreme Court specifically warned against in <i>Bilski</i> . Allowing Edge to patent the idea of automating the well-known, conventional method(s) of buying and selling stocks and/or derivatives based on price discrepancies “would effectively grant a monopoly over an abstract idea.” <i>Bilski v. Kappos</i> , 130 S. Ct. 3218, 3231 (2010).
37. The automated trading method according to claim 36, wherein the identified transaction value is a volatility value corresponding to the first traded item.	<p>See analysis of claim 36, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
38. The automated trading method according to claim 36, wherein the identified transaction value is a maximum buy value for the first traded item.	<p>See analysis of claim 36, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
39. The automated trading method according to claim 36, wherein the identified transaction value is a minimum sell value for the first traded item.	<p>See analysis of claim 36, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
40. The automated trading method according to claim 36, wherein the identified transaction value is a theoretical value for the first traded item generated based on a mathematical model.	<p>See analysis of claim 36, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase

	speed of previously manual and/or mental processes.
41. The automated trading method according to claim 36, wherein the look-up table comprises a linked list.	<p><i>See</i> analysis of claim 36, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
42. The automated trading method according to claim 36, wherein a backend computer performs the receiving, identifying, and using steps on a Windows-based operating system.	<p><i>See</i> analysis of claim 36, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional recitation of a “backend computer” does not allow this claim to pass the machine test, as this recitation suffers from all the same issues as the device recitations of claim 36. • The additional process limitations of this claim do not alter the transformation test analysis. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
43. The automated trading method according to claim 36, wherein a backend computer performs the receiving, identifying, and using steps on a text-based platform.	<p><i>See</i> analysis of claim 36, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional recitation of a “backend computer” does not allow this claim to pass the machine test, as this recitation suffers from all the same issues as the device recitations of claim 36. • The additional process limitations of this claim do not alter the transformation test analysis. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
44. The automated trading method according to claim 36, wherein: (a) a backend computer performs the	<p><i>See</i> analysis of claim 36, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional recitations of a “backend computer” and a “trader station” do not allow this claim to pass the machine test, as these

<p>receiving, identifying, and using steps,</p> <p>(b) a trader station separate from said backend computer calculates transaction values for storage in the look-up table and transmits the calculated transaction values to the backend computer, and</p> <p>(c) the backend computer stores the calculated transaction values in the look-up table.</p>	<p>recitations suffer from all the same issues as the device recitations of claim 36.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the transformation test analysis. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
<p>45. The automated trading method according to claim 44, further comprising the steps of checking values stored in the look-up table of the backend computer with values stored in a look-up table in said trader station to confirm the accuracy of the look-up table stored in the backend computer.</p>	<p><i>See</i> analysis of claims 36 and 44, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional recitations of a “backend computer” and a “trader station” do not allow this claim to pass the machine test, as these recitations suffer from all the same issues as the device recitations of claim 36. • The additional process limitations of this claim do not alter the transformation test analysis. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.
<p>46. The automated trading method according to claim 36, further comprising the steps of:</p> <p>(a) submitting an order for the first traded item;</p> <p>(b) receiving confirmation of a transaction from an exchange responsive to the order submitted; and</p>	<p><i>See</i> analysis of claim 36, from which this claim depends.</p> <ul style="list-style-type: none"> • The additional process limitations of this claim do not alter the machine or transformation test analyses. • The additional limitations do not alter the conclusion that this claim attempts to cover the abstract idea of using automation to increase speed of previously manual and/or mental processes.

(c) submitting an order for the second traded item to hedge a delta risk associated with the confirmed transaction.	
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